

WHAT IS CLAIMED AS NEW IS AS FOLLOWS:

10076443-021902

1. A seal and bearing assembly for receiving and supporting one end portion of a driven rotary shaft, which comprises a housing adapted for removable attachment to an end wall of a receptacle through which the driven shaft passes, bearing and seal subassemblies laterally spaced in said housing and surrounding said shaft and supporting the shaft from the housing adjacent an end extremity of the shaft, a trunnion member surrounding and journaling said housing from a support, said housing having an opening in a bottom portion thereof in general alignment with a space between the bearing and seal subassemblies to enable material which passes through the seal assembly from the receptacle to fall through said opening.

2. The structure as defined in claim 1, wherein said receptacle is a mortar mixer drum rotatable about the axis of the shaft for dumping, said shaft being a paddle shaft and extending through an aperture in an end wall of the drum, said housing being bolted to said end wall to enable replacement of the housing, seal subassembly and bearing subassembly.

3. The structure as defined in claim 1, wherein said shaft includes a retaining member removably mounted on the end thereof remote from the end wall for engaging the bearing, said bearing being a ball bearing having an inner race engaged by the

retaining member and an outer race seated against a shoulder in said housing, said housing and trunnion member having cylindrical bearing surfaces enabling rotatable movement of the housing and drum independent of rotation of the paddle shaft.

4. The structure as defined in claim 1, wherein said housing includes a peripheral outwardly extending shoulder thereon to enable a bearing puller to engage the peripheral shoulder and the end of the shaft to pull the housing, seal subassembly and bearing subassembly off the shaft.

5. A replacement seal and bearing assembly for receiving and supporting one end of a paddle shaft extending through an aperture in an end wall of a drum of a mortar mixer which comprises a housing removably attached to said drum end wall, bearing and seal subassemblies laterally spaced in said housing and surrounding said shaft and supporting said shaft from the housing adjacent an end extremity of the shaft, a trunnion member surrounding and journaling said housing from a support, and said housing and said bearing and seal subassemblies combined into a unitary assembly for removal and replacement.

6. The structure as defined in claim 5, wherein said housing includes a peripheral flange engaging an end wall of the mixer drum, and fastening means detachably securing the flange to the end wall of the mixer drum to enable removal of said unitary

assembly of the housing, the bearing and seal subassemblies from the end wall of the mixer drum and replacement with a preassembled housing and bearing and seal subassembly unit.

7. The structure as defined in claim 5, wherein said housing includes a peripheral engaging means intermediate the ends of the housing to form a structure engageable by a conventional bearing puller to enable axial force to be exerted on said unitary assembly to separate the unitary assembly from the shaft.

8. In a mortar mixer, a pivotally supported generally horizontally disposed mixer drum, a rotatably driven paddle shaft extending through drum end walls, an outwardly projecting housing on each end wall rotatably supporting remote ends of said paddle shaft, laterally spaced bearings and seals interposed between the housing and shaft for rotatably supporting the shaft and forming a seal between the shaft and the housing, said housing including an opening in a bottom portion thereof communicating with a space between the bearings and seals to discharge material migrating between the shaft and seals to protect the bearings from contamination by the material and indicating wear conditions of the seals.

9. The structure as defined in claim 8, wherein said housing includes a peripheral flange supported from an end wall of the mixer drum, and fastening means detachably securing said flange

on the end wall of the mixer drum to enable removal of said housing, bearings and seals from the end wall of the mixer drum thereby enabling replacement with a preassembled housing and seal and bearing assembly unit.

10. The structure as defined in claim 8, wherein said bearings are mounted in a bearing subassembly on said shaft, a shoulder on said housing engaging said bearing subassembly, said housing including a peripheral outwardly projecting rib intermediate the ends thereof to enable a bearing puller to exert an axial force on said housing and bearing subassembly to separate said bearing subassembly from said shaft.

11. The structure as defined in claim 10, wherein said shaft includes a retaining member removably mounted on the end thereof remote from the end wall for engaging the bearing subassembly, said bearing assembly having an inner race engaged by the retaining member and an outer race seated against said shoulder in said housing and ball bearings therebetween, said housing and trunnion member having cylindrical bearing surfaces enabling rotatable movement of the housing and drum independent of rotation of the paddle shaft.

12. The structure as defined in claim 8, wherein each of said housings is pivotally supported from a supporting trunnion to enable the drum to pivot about the axis of the paddle shaft from a

mixing position to a dumping position, said trunnions retaining
said housings axially on supports.

10076648-021002